

t26_topalg_3

(TMPymquQeHSP61qcpfQBcDdLEoyVQAb5M8u)

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Let $v2_struct_0 : \iota \Rightarrow o$ be given. Let $v2_pre_topc : \iota \Rightarrow o$ be given. Let $l1_pre_topc : \iota \Rightarrow o$ be given. Let $v1_funct_1 : \iota \Rightarrow o$ be given. Let $v1_funct_2 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$ be given. Let $u1_struct_0 : \iota \Rightarrow \iota$ be given. Let $v5_pre_topc : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$ be given. Let $m1_subset_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k1_zfmisc_1 : \iota \Rightarrow \iota$ be given. Let $k2_zfmisc_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $m1_borsuk_2 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k1_partfun1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k5_topmetr : \iota$ be given. Let $k3_funct_2 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $r1_borsuk_6 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$ be given. Assume the following.

$$\begin{aligned}
 & \forall X0.((\neg v2_struct_0 X0) \wedge ((v2_pre_topc X0) \wedge (l1_pre_topc \\
 & X0))) \Rightarrow (\forall X1.((\neg v2_struct_0 X1) \wedge ((v2_pre_topc X1) \wedge (l1_pre_topc \\
 & X1))) \Rightarrow (\forall X2.((v1_funct_1 X2) \wedge ((v1_funct_2 X2 (u1_struct_0 \\
 & X0) (u1_struct_0 X1)) \wedge ((v5_pre_topc X2 X0 X1) \wedge (m1_subset_1 X2 \\
 & (k1_zfmisc_1 (k2_zfmisc_1 (u1_struct_0 X0) (u1_struct_0 X1)))))) \Rightarrow \\
 & (\forall X3.(m1_subset_1 X3 (u1_struct_0 X0)) \Rightarrow (\forall X4.(m1_subset_1 \\
 & X4 (u1_struct_0 X0)) \Rightarrow (\forall X5.(m1_borsuk_2 X5 X0 X3 X4) \Rightarrow ((r1_borsuk_6 \\
 & X0 X3 X4) \Rightarrow (m1_borsuk_2 (k1_partfun1 (u1_struct_0 k5_topmetr) \\
 & (u1_struct_0 X0) (u1_struct_0 X0) (u1_struct_0 X1) X5 X2) X1 (k3_funct_2 \\
 & (u1_struct_0 X0) (u1_struct_0 X1) X2 X3) (k3_funct_2 (u1_struct_0 \\
 & X0) (u1_struct_0 X1) X2 X4))))))))))
 \end{aligned} \tag{1}$$

Assume the following.

$$\begin{aligned}
 & \forall X0. \forall X1. \forall X2. (((\neg v2_struct_0 X0) \wedge ((v2_pre_topc \\
 & X0) \wedge (l1_pre_topc X0))) \wedge ((m1_subset_1 X1 (u1_struct_0 X0)) \wedge (\\
 & m1_subset_1 X2 (u1_struct_0 X0)))) \Rightarrow (r1_borsuk_6 X0 X1 X1)
 \end{aligned} \tag{2}$$

Assume the following.

$$\forall X0. \exists X1. m1_subset_1 X1 X0 \tag{3}$$

Theorem 1

$$\begin{aligned} & \forall X0.((\neg v2_struct_0 X0) \wedge ((v2_pre_topc X0) \wedge (l1_pre_topc \\ & X0))) \Rightarrow (\forall X1.((\neg v2_struct_0 X1) \wedge ((v2_pre_topc X1) \wedge (l1_pre_topc \\ & X1))) \Rightarrow (\forall X2.((v1_funct_1 X2) \wedge ((v1_funct_2 X2 (u1_struct_0 \\ & X0) (u1_struct_0 X1)) \wedge ((v5_pre_topc X2 X0 X1) \wedge (m1_subset_1 X2 \\ & (k1_zfmisc_1 (k2_zfmisc_1 (u1_struct_0 X0) (u1_struct_0 X1))))))) \Rightarrow \\ & (\forall X3.(m1_subset_1 X3 (u1_struct_0 X0)) \Rightarrow (\forall X4.(m1_borsuk_2 \\ & X4 X0 X3 X3) \Rightarrow (m1_borsuk_2 (k1_partfun1 (u1_struct_0 k5_topmetr) \\ & (u1_struct_0 X0) (u1_struct_0 X0) (u1_struct_0 X1) X4 X2) X1 (k3_funct_2 \\ & (u1_struct_0 X0) (u1_struct_0 X1) X2 X3) (k3_funct_2 (u1_struct_0 \\ & X0) (u1_struct_0 X1) X2 X3)))))) \end{aligned}$$